



Hi-Sil® 180H-M

Rubber Reinforcing Silica

Hi-Sil® 180H-M is a white, synthetic, amorphous silicon dioxide high density powder. It is used as a highly reinforcing filler in black, non-black, and translucent rubber compounds.

Typical Properties and Characteristics of Hi-Sil® 180H-M

Hi-Sil®	N ₂ Surface Area, BET-1	N ₂ Surface Area, BET-5	pH	Na ₂ SO ₄ , wt. %	Physical Form
180H-M	180 m ² /g	150 m ² /g	7	2.5 Max	High density powder

Registration Number

CAS No. 112926-00-8	Synthetic Precipitated Amorphous Silica
CAS No. 7631-86-9	TSCA Chemical Substance Inventory (SiO ₂)
231-545-4	European EINECS

Mechanical Rubber Goods and Footwear

Hi-Sil® 180H-M is an excellent, highly reinforcing silica with broad applicability. It delivers good dispersion quality in Synthetic and Natural Rubber. Hi-Sil® 180H-M is recommended for use in applications requiring very high dispersion, such as thin-wall articles or in mixes with low viscosity rubber. Hi-Sil® 180H-M provides shoe sole final compound properties with good to excellent tear and abrasion resistance, without drastically increasing processing viscosity or reducing compound flow.

Rubber Processing Recommendations

For powder silica products, it is recommended that the silica be added as early as possible in the mixing schedule. In general, the silica should be added at the same time as the polymer(s) and before the addition of process oil to allow time for the silica to incorporate into the polymer. For mixes with a high loading of silica powder, split additions are recommended...the first addition with the polymer and the second with the process oil. As high mix viscosity aids in silica dispersion, split oil additions are recommended when processing oils are used.

Note: Silica incorporation time and dispersion in rubber will vary based on internal mixer type and rotor design.

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60 S. Seiberling Street • Akron, Ohio 44305

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Packaging

Hi-Sil® Product	Net weight	Bag Construction
Hi-Sil® 180H-M	20 Kg (44 pounds) 300 Kg (660 pounds)	kraft paper bags, palletized and stretch wrapped with clear plastic, 720 Kg (1,587 pounds)/pallet polypropylene FIBC, double stacked on wooden pallets

Storage

To ensure product integrity PPG recommends that our silica products be stored under dry, clean conditions and protected against exposure to other substances. Since silica may pick up moisture we also recommend that products that are stored more than one year, from date of manufacture, be re-tested for moisture content. There is no shelf life limit when stretch-wrapped palletized units or bags are kept under the above stated conditions.

Safety and Health Effects



PPG Industries Inc. is committed to the safe handling of chemicals at every step of the process, from manufacturing and distribution through education of the end user. Our participation in the American Chemistry Council's *Responsible Care*® Program is evidence of our commitment to the health, safety and welfare of our employees and the industry. PPG Industries Inc. recommends thoroughly reading and understanding the product labels, Material Safety Data Sheets, and other safety information about the product prior to use or handling. Product health and safety information should be made available to your employees and customers.

Samples and Service

PPG's Technical Service specialists are available for consulting on the use, handling and storage of Hi-Sil® 180H-M.

Gallon containers and bag-size samples are available upon request from Technical Service.



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Customer Service: 1-800-243-6745
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Statements and methods presented in this publication are based upon the best available information and practices known to PPG Industries at present, but are not representations or warranties of performance, result or comprehensiveness, nor do they imply any recommendations to infringe any patent or an offer of license under any patent.

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